

CLAIMS

5        1. A nucleic acid molecule comprising a chimeric virus genome, said genome being a BVDV genome in which the structural region of the BVDV genome has been replaced by the structural region of a hepatitis C virus genome.

10      2. The nucleic acid molecule of claim 1, wherein at least one gene from the structural region of the BVDV genome has been replaced by the corresponding gene from the structural region of a hepatitis C virus genome.

15      3. The nucleic acid molecule of claim 2, wherein the gene from the structural region is selected from the group consisting of E1, E2 or C.

20      4. The nucleic acid molecule of claim 2, wherein the E1 and E2 genes from the structural region of the BVDV genome have been replaced by the E1 and E2 genes of a hepatitis C virus genome.

25      5. The nucleic acid molecule of claim 2, wherein the E1 gene from the structural region of the BVDV genome has been replaced by the E1 gene of a hepatitis C virus genome.

30      6. The nucleic acid molecule of claim 2, wherein the E2 gene from the structural regions of the BVDV genome has been replaced by the E2 gene of a hepatitis C virus genome.

35      7. A nucleic acid molecule comprising a chimeric virus genome, said genome being a BVDV genome in which the non-structural region of the BVDV genome

has been replaced by the non-structural region of a hepatitis C virus genome.

8. The nucleic acid molecule of claim 7,  
wherein at least one gene from the non-structural region  
5 of the BVDV genome has been replaced by the  
corresponding gene from the non-structural region of a  
hepatitis C virus genome.

9. A DNA construct comprising the nucleic  
10 acid molecule of claims 1, 2 or 7.

10. An RNA transcript of the DNA construct of  
claim 9.

11. A polypeptide encoded by the nucleic acid  
15 molecule according to claim 1.

12. A polypeptide encoded by the nucleic acid  
molecule according to claim 2.

13. The polypeptide according to claim 12,  
20 wherein said polypeptide is selected from the group  
consisting of E1, E2 or C.

14. A host cell transfected with the DNA  
construct of claim 9.

25 15. A host cell transfected with the RNA  
transcript of claim 10.

16. A chimeric HCV-BVDV virus produced by  
transfected a host cell with the DNA construct of claim  
30 9.

17. A chimeric HCV-BVDV virus produced by  
transfected a host cell with the RNA transcript of  
claim 10.

18. A cell infected with the virus of claim  
16.

19. A cell infected with the virus of claim  
17.

5 20. A composition comprising the virus of  
claims 16 or 17 in a suitable excipient, diluent or  
carrier.

10 21. The nucleic acid molecule of claims 1, 2  
or 7, wherein the hepatitis C virus genome is an  
infectious hepatitis C virus genome.

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